EA 2.2 Interpreting Data Activity

Activity Purpose: The purpose of this activity is to provide opportunities to interpret different tables and graphs depending on the questions that you start with. Data interpretation can be difficult in that we tend to want to draw conclusions that may go beyond what the display or numbers really mean. The key to interpreting data is to make sure the conclusions you draw are based on that information and you are not reading into the data more than it can tell you. The Joe Friday approach of "just tell me the facts" is the route to take when interpreting.

Activity Resources:

- Tables and graphs for this activity come from the Condition of Education report (http://www.state.ia.us/educate/fis/pre/coer/index.html) published by the Iowa Department of Education yearly and the school profile website (https://www.edinfo.state.ia.us/data/profiles.asp or http://www.iowaschoolprofiles.com) You will find the graphs and tables you need in the staff section and the student performance section and the Staff section.
- Atomic Learning website
    - Go to http://www.iowaaeaonline.org and select atomic learning link. If you do not know your log in and password information you can obtain that from your media specialist. If they do not have this information contact the media division at your local Area Education Agency. Atomic learning is a free web based tutorial program. For this activity you would use the excel tutorials.
- Questions to answer and the tables and graphs to answer them.
- Activity reflection sheet

Task: Using various parts of the Condition of Education report answer the questions below. Create a graph that would display the answer to each of the questions.

Then using the school profile site http://www.iowaschoolprofiles.com create comparison graphs for your district to 3 other districts of your choice. Be sure to print your graph that you interpret and provide the graphs along with your interpretive statements. Return your statements for each of the questions to your instructor with the reflection sheet via email or on paper.

Questions:

1. How has Reading Comprehension changed for 8th grade students in the state of Iowa? Use table titled Percent of Iowa Eighth grade students performing at or above proficient level on ITBS reading comprehension test

2. What is the difference between 4th grade math performance between students on free and reduced lunch and those not receiving free and reduced lunch?
   Use table titles percent of Iowa fourth grade students performing at or above proficient level on ITBS mathematics test by socioeconomic status

3. What are the trends in drop out rates for the state of Iowa? How does that rate compare for males and females?
   Use table titled Iowa grade 7-12 dropouts as percent of public school students grade 7-12 and table titled Iowa grade 7-12 dropouts as percent of public school students grade 7-12 by gender.

4. How does Iowa compare to other states in how well prepared our students are for post secondary education? How do the numbers of students taking the assessment compare to the nation?
   Use table titled ACT composite score for Iowa, the nation and Midwest states.

5. How do teacher salaries compare to those in other states? Which states on average pay more than Iowa?
   Use tables from teacher salary comparisons nation and Midwest states section.

6. What are the demographic differences between male and female principals?
   Use information from the Gender comparisons for Iowa full-time public school principals.

7. What is the average teacher pupil ratio for Iowa? Are their differences between those ratios based on the size of the district?
   Use information from the k-12 pupil-teacher rations for Iowa public schools by enrollment category.

For the next three questions use the school profile site http://www.iowaschoolprofiles.com and remember to provide your instructor with a copy of the graph and the answer to the questions

8. How many of your 11th grade students are proficient in Math? How does that compare to 3 neighboring districts and to the state average? What differences do you see between how the different subgroups are performing on the test?

9. What is the rate of attendance for your school district? How does that compare to 3 neighboring districts and to the state average? How has this changed over time?

10. What is the graduation rate for your school district? How does that compare to 3 different districts and to the state average? What differences do you see in the graduation rate of the different subgroups included?